

Markley - Magnolia - Valley View
Salina, Kansas

Sanitary Sewer Master Plan



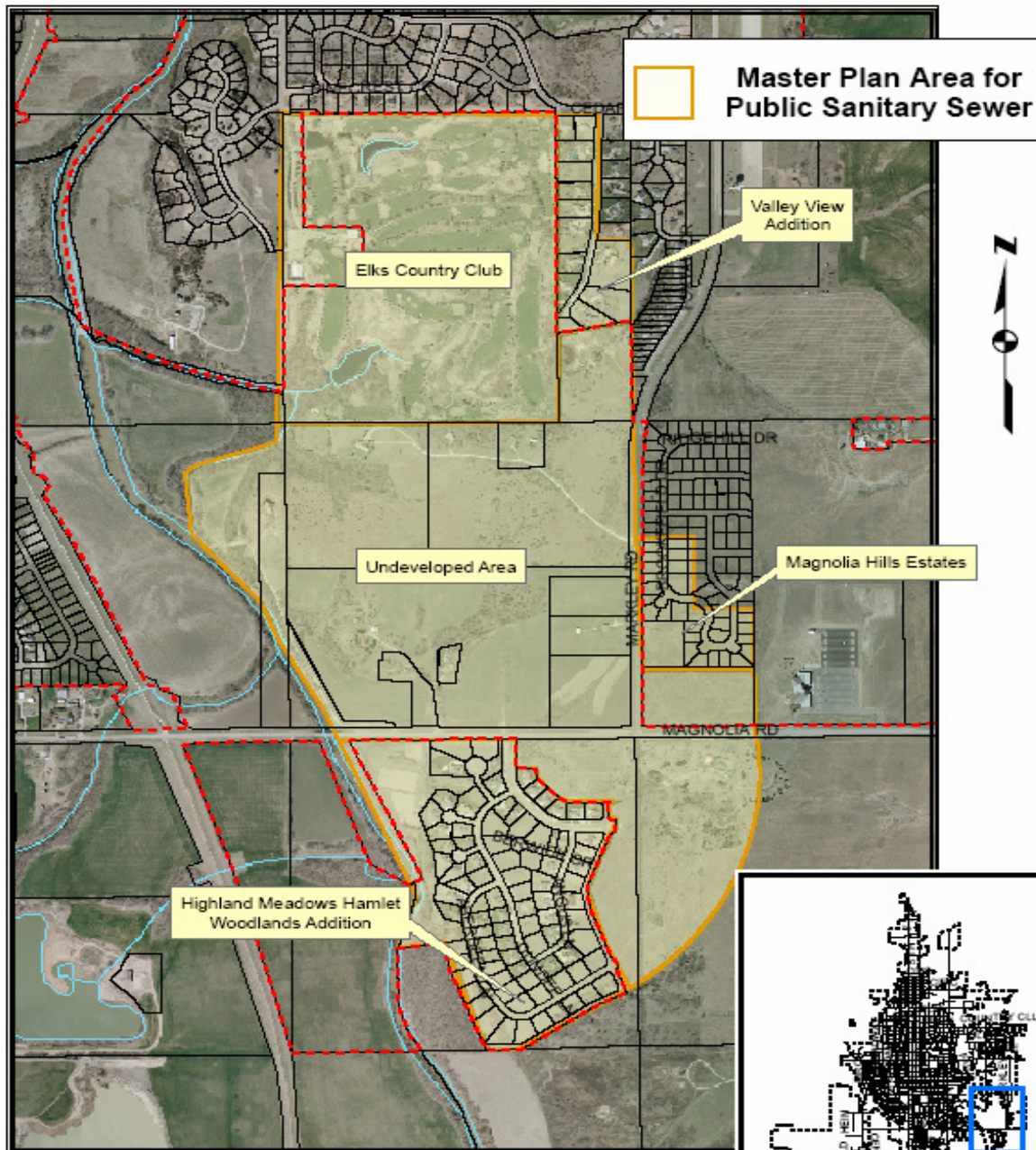
April, 2007



BWR | Right in the Center

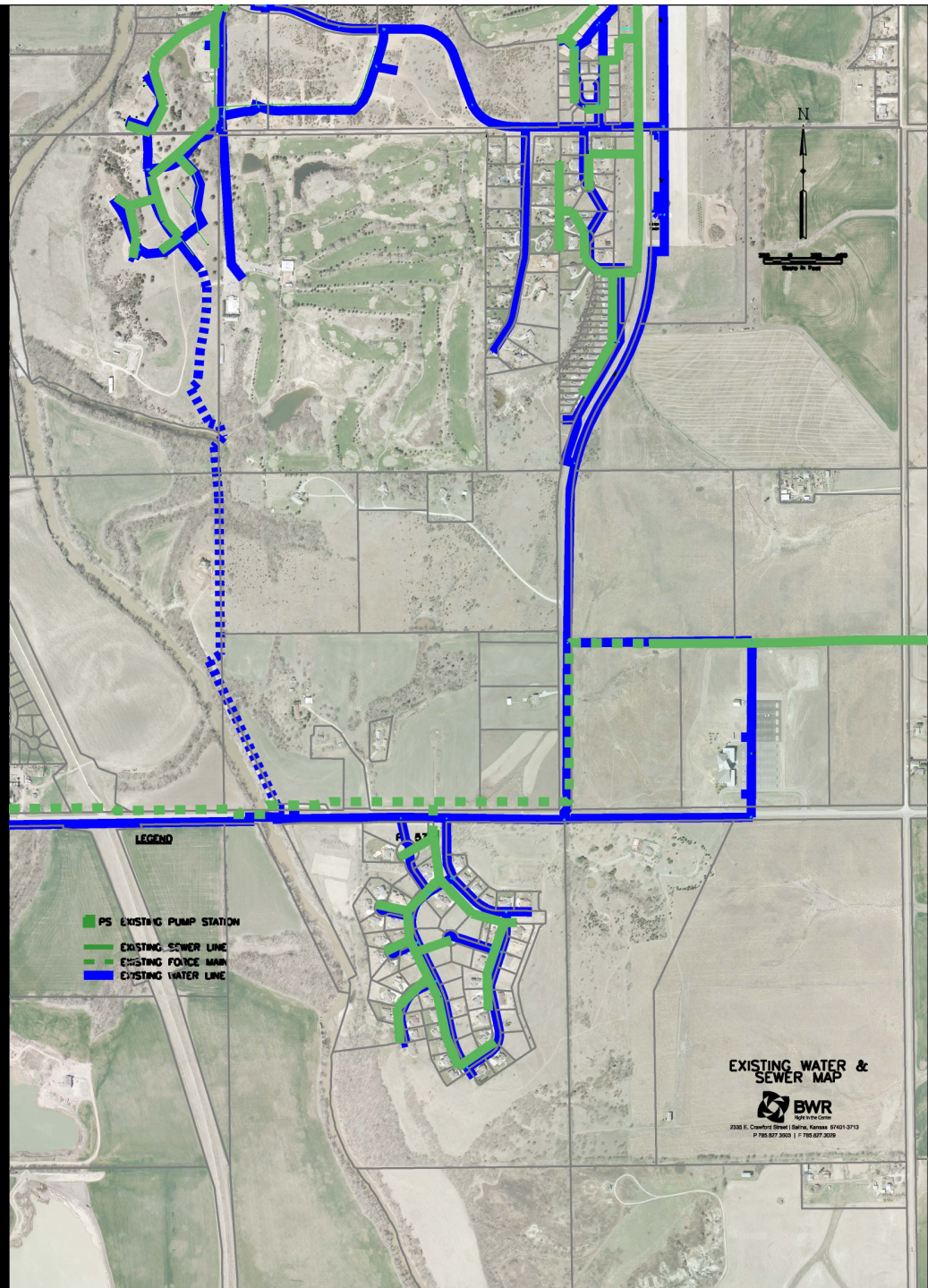
What is a Utility Master Plan?

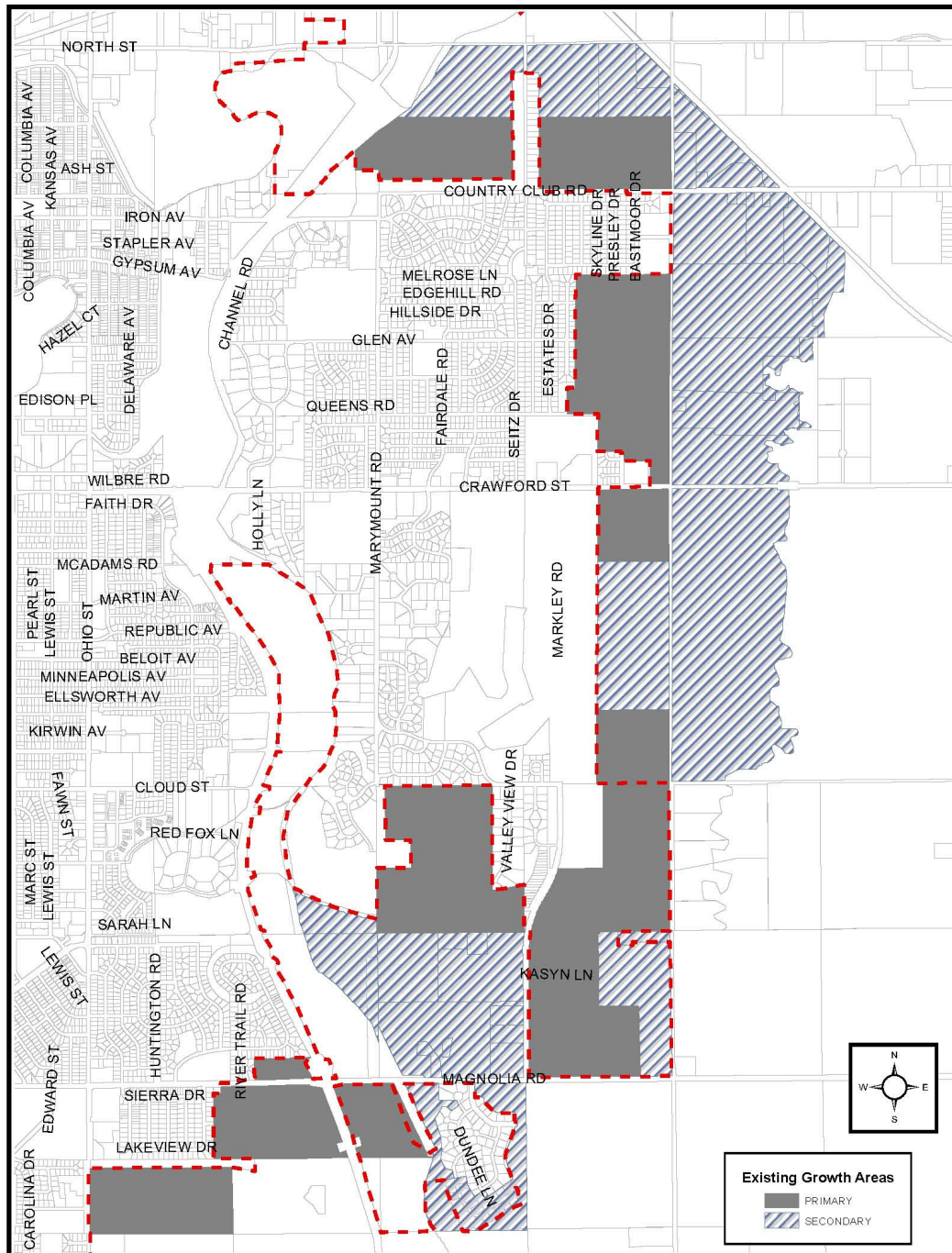
- Establishes full scope of city water and sanitary sewer improvements needed.
- Estimates cost of improvements.
- Determines long range impacts.
- Identifies economy of scale (capital/rate-based system vs. rate-based system).
- Allows City to formulate financing options for developers/property owners.
- Finds efficiencies of design/phasing/maintenance.
- Establishes critical mass needed for development.



Markley / Magnolia / Valley View Areas

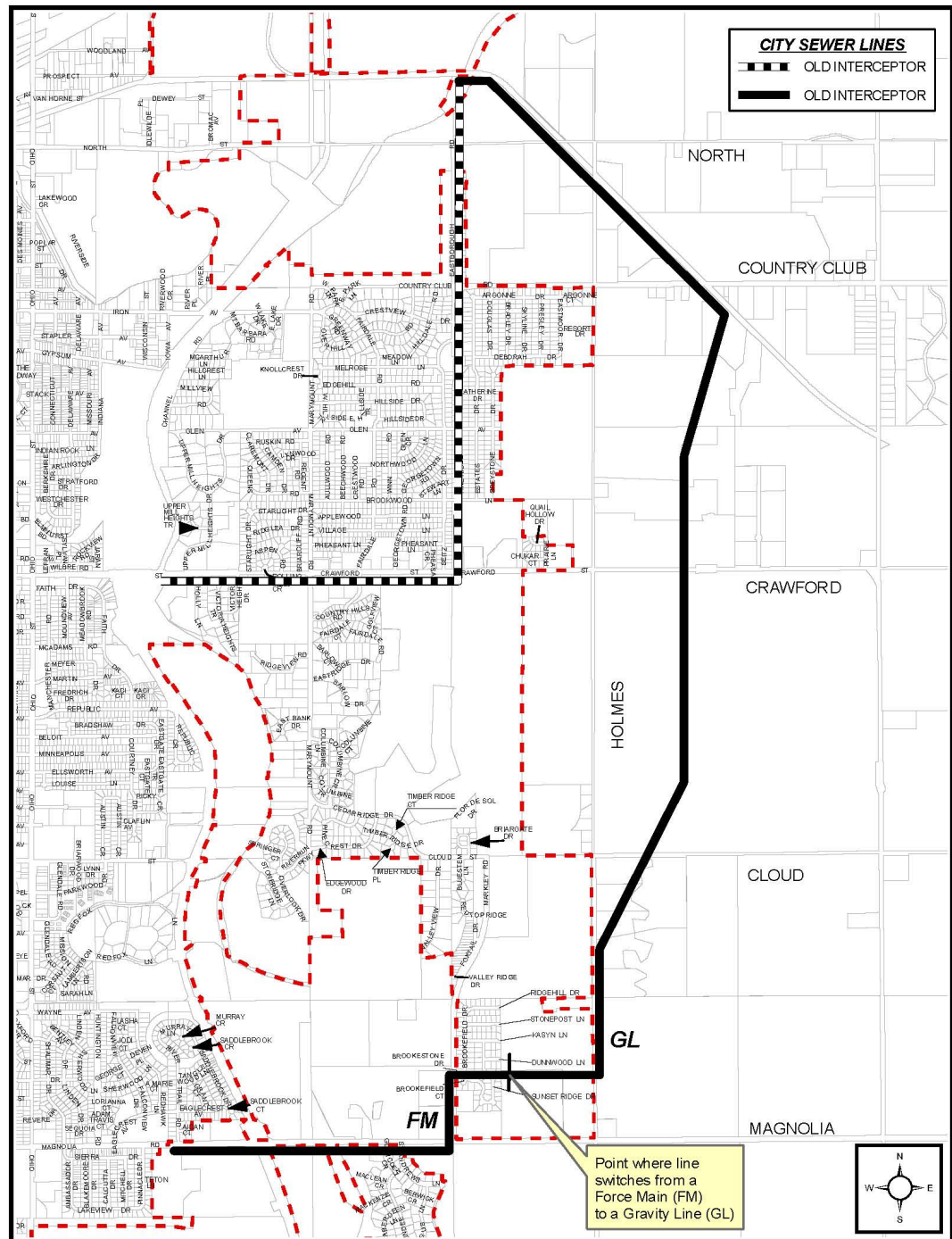
Existing Sewer / Water

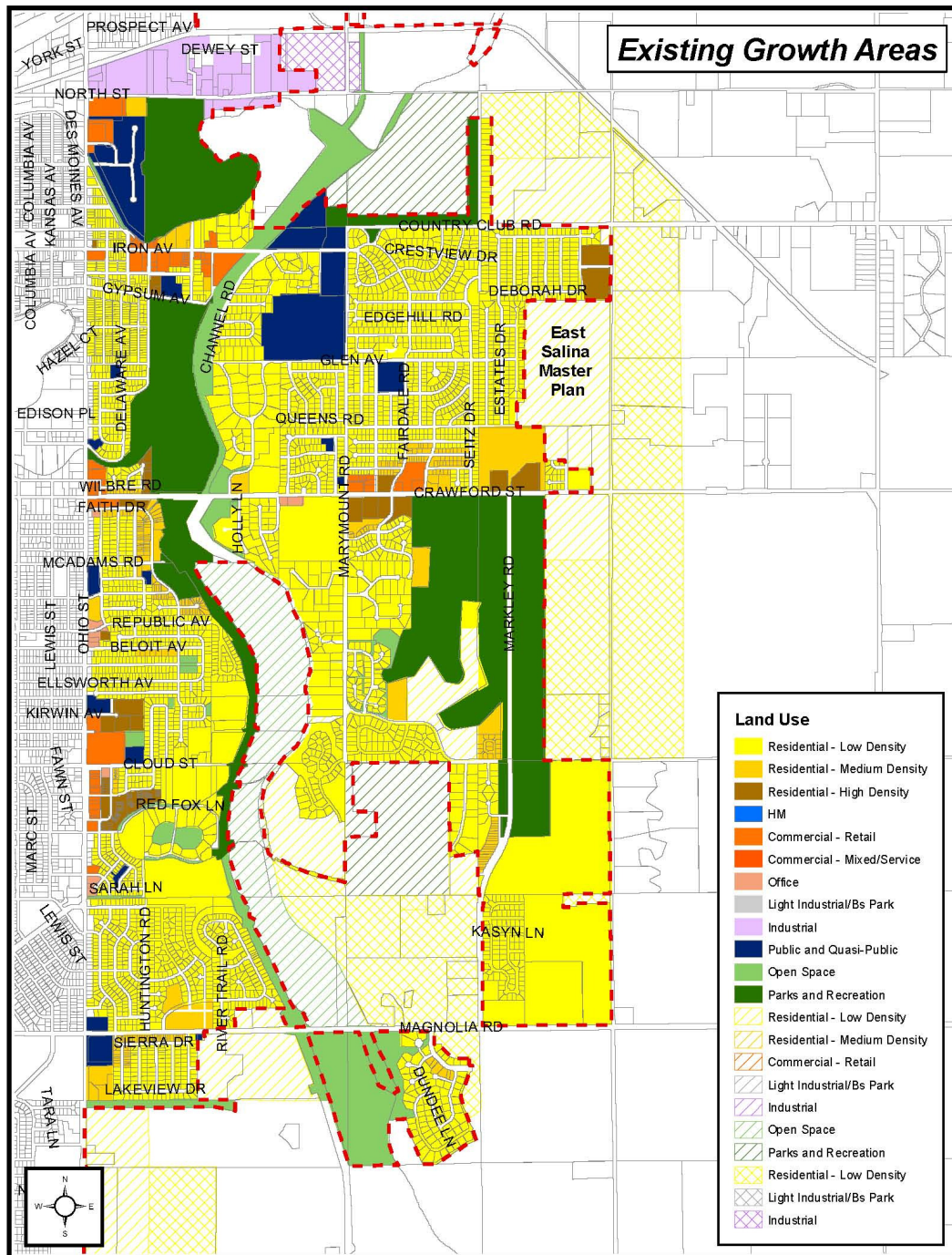




Existing Growth Area

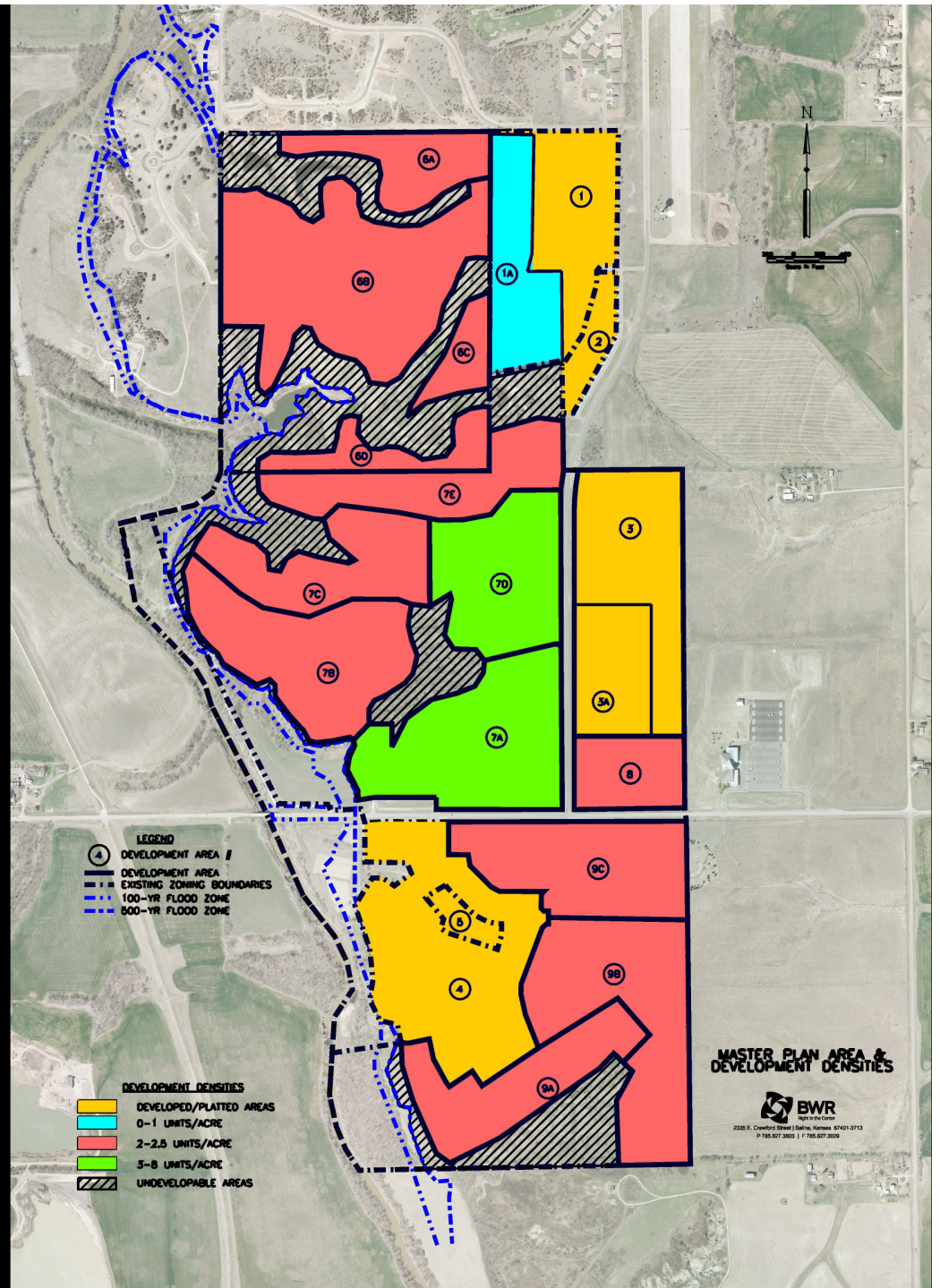
New Interceptor

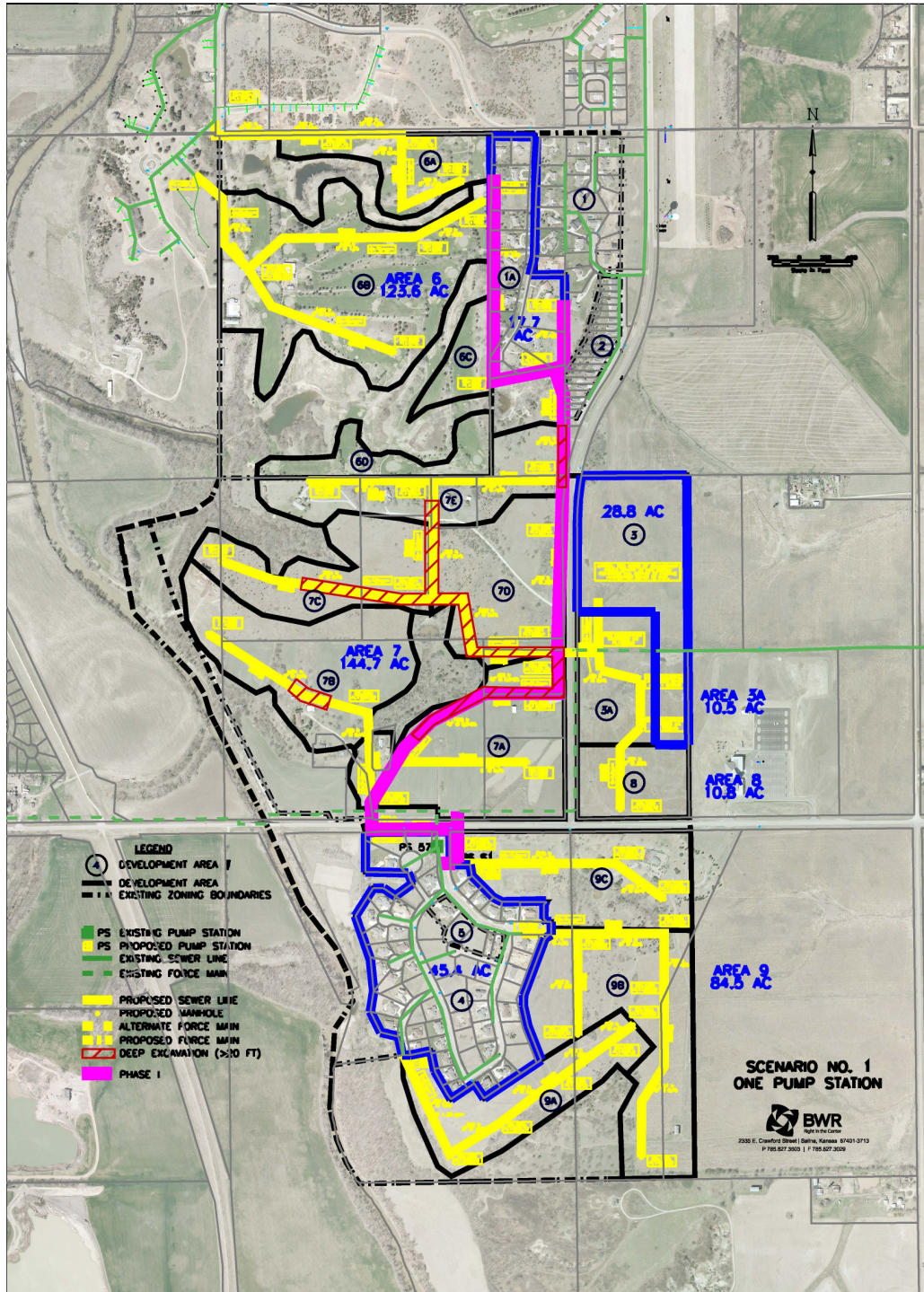




Future Land Use

Density Map



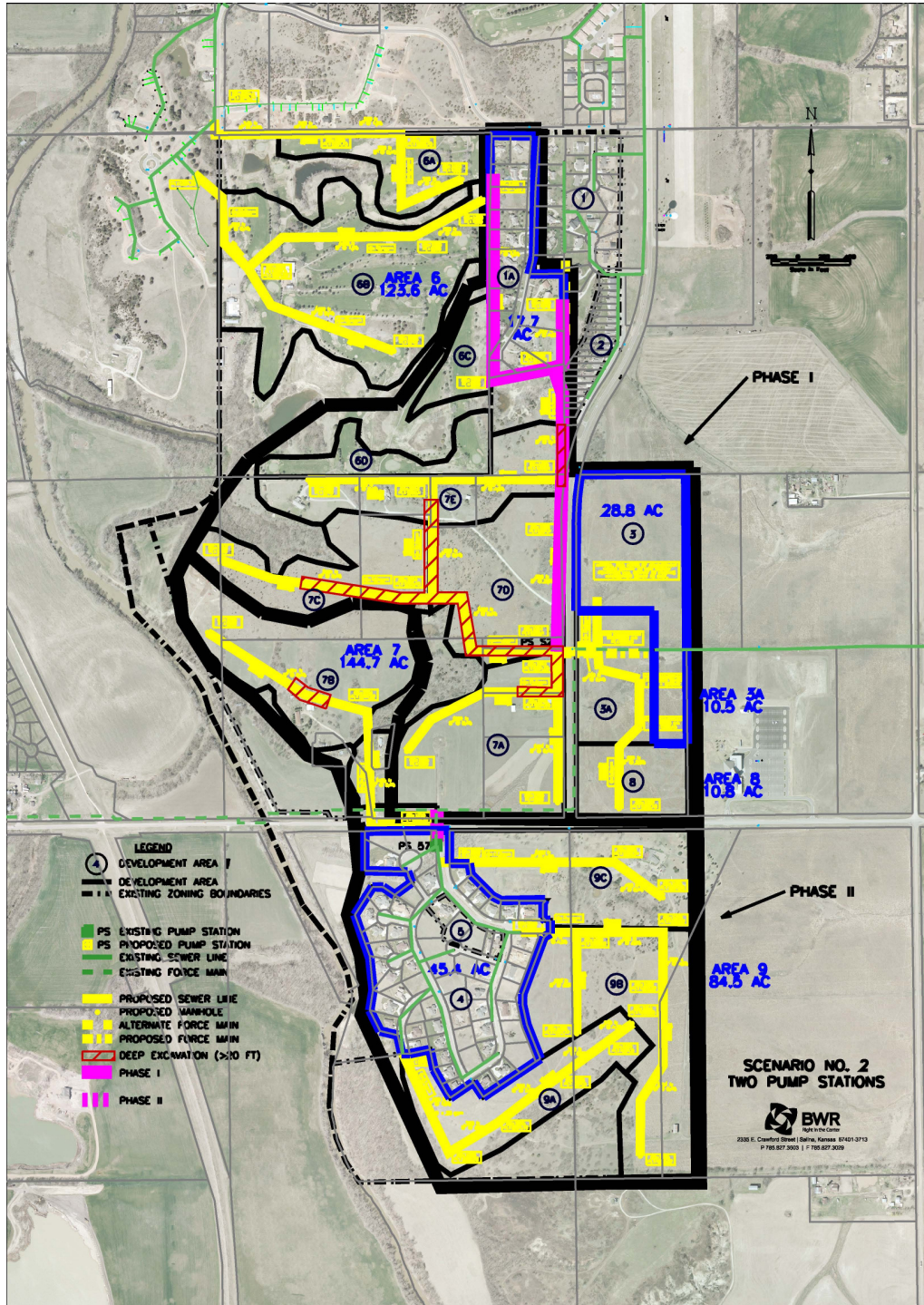


1 Pump Station

ENGINEERS OPINION OF PROBABLE PROJECT COSTS
Master Plan: Markley-Magnolia-Valley View Sanitary Sewer System
Salina, Kansas
April 2007

Scenario No. 1 - One Pump Station

Map Area	Item	Total
1A	Gravity Sewer	\$ 313,150.00
4 & 5	Gravity Sewer & Pump Station	\$ 474,650.00
7A	Gravity Sewer	\$ 281,100.00
7D	Gravity Sewer	\$ 65,550.00
	20% Contingency	\$ 226,890.00
	25% Contractor Overhead & Profit	\$ 340,335.00
TOTAL CONSTRUCTION COST		\$ 1,701,675.00
	LIFE CYCLE COST	\$ 146,810.00



2 Pump Stations

ENGINEERS OPINION OF PROBABLE PROJECT COSTS
Master Plan: Markley-Magnolia-Valley View Sanitary Sewer System
Salina, Kansas
April 2007

Scenario No. 2 - Two Pump Stations

Phase	Map Area	Item	Total
Phase I	1A	Gravity Sewer	\$ 313,150.00
	3	Force Main Piping	\$ 57,250.00
	7A	Pump Station (Includes Dewatering, Electrical, etc) (Cost Range = \$170,000 to \$300,000)	\$ 300,000.00
	7D	Gravity Sewer	\$ 65,550.00
		20% Contingency	\$ 147,190.00
		25% Contractor Overhead & Profit	\$ 220,785.00
		SUBTOTAL - PHASE I	\$ 1,103,925.00
Phase II	4 & 5	Gravity Sewer & Pump Station	\$ 322,300.00
		20% Contingency	\$ 64,460.00
		25% Contractor Overhead & Profit	\$ 96,690.00
		SUBTOTAL - PHASE I	\$ 483,450.00
TOTAL CONSTRUCTION COST			\$1,392,375 to \$1,587,375
LIFE CYCLE COST			\$124,898 to \$141,719

In Summary...

Scenario 1: One Pump Station

Advantages

- Less operation & maintenance.
- Less potential sources for odor.

Disadvantages

- More gravity line to install (initially).
- Higher cost.

TOTAL CONSTRUCTION COST:	\$1,701,675.00
TOTAL LIFE CYCLE COST:	\$146,810.00

In Summary...

Scenario 2: Two Pump Stations

Advantages

- Phased approach.
- Lower cost.

Disadvantages

- More operation & maintenance.
- More potential sources of odor.

TOTAL CONSTRUCTION COST:	\$1,392,375 – \$1,587,375
TOTAL LIFE CYCLE COST:	\$124,898 – \$141,719

Financing Options

The \$1.4 – 1.7 upfront construction cost would be financed by the City through Water and Wastewater Funds or the sale of GO bonds. The City's investment could be recovered in one of two ways:

- **COST RECOVERY ORDINANCE**

The City could establish a cost recovery area with a per acre hook up charge that would be payable at the time a property within the benefit area connected to the pump station system.

Advantages: Easy to calculate and administer. If property develops quickly the City recovers its costs sooner.

Disadvantages: A large, lump sum hook up charge may be difficult for some property owners to pay.

- **SPECIAL ASSESSMENT BENEFIT DISTRICT**

The City could initiate the creation of a benefit district that would include all of the property served by the pump station with each property owner's assessment being payable over 15 years.

Advantages: More affordable for individual lot owners served by the pump station by extending payments over 15 years. Sanitary sewer benefit districts can not be protested.

Disadvantages: Only property that is platted and within city limits may initially be included in the benefit district. Property outside the city may be added to the district under K.S.A. 12-6a19 when it develops and connects to the system. With a 15 year payment schedule it will take a longer time for the City to recover its upfront investment.

Only a small portion of the City's investment would be recovered initially.

Questions?